



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/904,299 07/31/97 LUNDBERG

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EXAMINER

QM02/0118

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KAMEN, N

ART UNIT

PAPER NUMBER

3747

DATE MAILED:

01/18/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

8/904,299

Applicant(s)

Lundberg

Examiner

Komen

Group Art Unit

3747

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 1/10/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-6, 9-12, 16-22 is/are pending in the application.
- Of the above claim(s) 9, 17-22 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-6, 10-12, 15, 16 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grennan (fig.2). Grennan shows all of the recited elements except the capacity of the generator 166. Sizing the generator would have been obvious to one of ordinary skill in the art according to the supply system size and degree of peak capacity. Furthermore, the use of gauges, valves and appropriate controls are inherently necessary for the proper operation of Grennan.

### ***Response to Arguments***

3. Applicant's arguments filed 7/20/00 have been fully considered but they are not persuasive. The applicant argues that Grennan has a motor 166 that requires combustion for its operation. The examiner agrees that a motor is needed for the operation, but the motor could just as well be powered by batteries charged when the gas is expanded. Grennan is silent how the motor is powered. The applicant argues that Grennan teaches (col.4, lines 11+) that combustion is carried out to increase the temperature of the fluid. The examiner argues that the embodiment of figure 2 does not require the combustion of gas.

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The applicant argues that Grennan does not teach a method of generating power or a satellite assembly that requires the direct utilization of a portion of the gas flowing through the delivery conduit pipeline to a customer. Instead, Grennan discloses a co-generation scheme that utilizes the flow of gas between the high and low pressure systems, not the diversion of a portion of gas that is flowing through the low pressure delivery conduit pipeline to each customer.

The examiner contends that Grennan clearly teaches (col.6, lines 38+) an arrangement where natural gas is transported at a high pressure over long distances and then reduced when it reaches its region of use and that there are a plurality of distribution lines (read satellites). Furthermore, it one of ordinary skill in the art did not require off peak energy storage, then the entire compression system could be removed. "It is well settled, however, that omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before." In re Karlson, 136 USPQ 184.

Applicant's arguments filed 1/10/01 have been fully considered but they are not persuasive.

The applicant argues that the prior art fails to teach directing a portion of the gas passing through the gas delivery conduit pipeline to a customer, which is free of a heat exchange member driven by a thermal machine, and without disturbing the flow of gas, to and through the satellite assembly to generate power. That Grennan system only the flow of gas between his high pressure and lower pressure systems, not the diversion of a portion of gas that is flowing through the low pressure gas delivery conduit to each customer. Further, that the motor of Grennan is powered by combustion (col.4, lines 13-16).

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The examiner first notes that applicant had elected the embodiment of figure 3 in paper 3.

This embodiment **also** includes a motor driven **compressor** 18 for delivering gas from a low pressure pipe to a high pressure pipe. A **heat exchanger** 34 warms the gas flowing to the expander that drives a generator, and may just as well use waste heat from a thermal machine.

Line 132 is described as a high pressure transmission line that transports gas over long distances.

Line 192 is described as a low pressure gas distribution line that branches off line 192 in the region of use and carries gas to end users. Therefore, the system shown in figure 2 reads on a satellite assembly. The patent to Grennan does not disclose either a heat exchanger driven by a thermal machine or combustion powering the generator/motor 166 in figure 2 (the embodiment of figure 1 is **not** relied upon). Generator/motor could be powered by solar energy.

Inquiries concerning the examiner's action should be directed to Noah Kamen at (703) 308-1945. The supervisory examiner, Henry Yuen, can be called at 308-1946. Fax is 308-7766. Questions of a general nature concerning the application should be directed to the group receptionist at 308-0861.

  
NOAH KAMEN  
PRIMARY EXAMINER  
ART UNIT 3747

January 17, 2001

**ATTACHMENT TO AND MODIFICATION OF**  
**NOTICE OF ALLOWABILITY (PTO-37)**  
*(November, 2000)*

**NO EXTENSIONS OF TIME ARE PERMITTED TO FILE CORRECTED OR FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION**, notwithstanding any indication to the contrary in the attached Notice of Allowability (PTO-37).

If the following language appears on the attached Notice of Allowability, the portion lined through below is of no force and effect and is to be ignored<sup>1</sup>:

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to **EXPIRE THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to comply will result in ABANDONMENT of this application. ~~Extensions of time may be obtained under the provisions of 37 CFR 1.136(a)~~

Similar language appearing in any attachments to the Notice of Allowability, such as in an Examiner's Amendment/Comment or in a Notice of Draftperson's Patent Drawing Review, PTO-948, is also to be ignored.

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<sup>1</sup> The language which is crossed out is contrary to amended 37 CFR 1.85(c) and 1.136. See "Changes to Implement the Patent Business Goals", 65 Fed. Reg. 54603, 54629, 54641, 54670, 54674 (September 8, 2000), 1238 Off. Gaz. Pat. Office 77, 99, 110, 135, 139 (September 19, 2000).